

# TORREYA

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## NATIVE ORCHIDS IN AND NEAR NEW YORK

H. M. DENSLOW

At a meeting held recently in the interest of the Wild Flower Preservation Society, it was stated that several species of orchids were found in the vicinity of Inwood on Manhattan Island, sixty years ago; about the time of the beginning of the Torrey Club. Among these were species of *Liparis*, *Spiranthes* (two species), *Peramium* and *Corallorrhiza*; and the more southern *Tipularia*. Of this rarer species so few plants were growing in the one little colony, that only one leaf and one flowering scape were collected. This specimen and the other species then collected are now in the Local Herbarium at the New York Botanical Garden. It is not known when *Tipularia* finally disappeared from Manhattan; but this and other interesting species were exterminated by the advance of what we call civilization. The prolonging of the life of that outpost colony of *Tipularia* was an early instance of wild flower preservation. Collectors have not always been so considerate of the future; as witness the steady robbing of a bog in Herkimer County of its *Orchis rotundifolia*. Ignorance and tillage and commerce have contributed their full share toward the destruction, locally, of large colonies of our native orchids; as of *Arethusa* in Queens, of *Habenaria blephariglottis* in the Bronx, of *Tipularia* on Staten Island. The need of land for building purposes, a farmer's wish for a new field, grading that eliminated a swamp account for these disappearances—and make us wonder about proportionate values.

Within the limits of the greater City, in its early years, orchids might still be found; attesting specimens are at hand of the three rose-pink species from within forty years of the present date.

But these were among the few survivors of an earlier abundance. With every decade the places where they might be found became more remote. In 1841, the pink *Pogonia* flourished in Astoria; now one must go well toward Montauk to find it; or its kindred, *Calopogon* and *Arethusa*. And some of their homes are now in peril. The showy orchis was growing on Staten Island in 1907. Some less conspicuous species probably persisted longer in Kings and Bronx Counties; even yet two are known to be growing in the Bronx; but their days are numbered.

So it has come about that the orchid-lover, now-a-days, must fare farther if he would discover new localities where his friends live or visit some well-known haunts. During the last five years the writer has made occasional trips to the northern townships of Passaic County, New Jersey, and the adjacent parts of Warwick, Orange County, New York. Some of his discoveries and reflections are here recorded.

In the towns of Pompton and West Milford there are large tracts of uncultivated territory, having some diversity of soil and aspect and including three extensive swamps. Much of this territory is still uninvestigated; but in the portions visited fourteen species of orchids have been found. The commonest and most widely distributed is *Peramium pubescens*. In twenty-two trips, this species was observed in nearly every one, including one in January. Often it was found in great numbers, in both dry and moist places.

The species next in frequency, so far as observed, is *Isotria verticillata*. Two considerable colonies are known, besides many scattered plants. About 100 plants were counted on June 1, 1927. Fruiting capsules were seldom seen. Apparently it does not blossom freely or it has not the needed insect visitors.

*Cypripedium acaule* grows in many places, but no colony is known. *Ibidium cernuum* is fairly abundant in one wet meadow. The two coralroots are widely distributed but not abundant. *Galeorchis* is found in one wooded ravine.

The other species included in the enumeration were seen only occasionally. These are: *Cypripedium pubescens*, *Ibidium gracile*, *Liparis liliifolia* and *L. Loeselii*, *Malaxis unifolia*,  *Habenaria fimbriata* and *H. psycodes*. It is noteworthy that the species most frequently seen in these two towns of northern New Jersey correspond closely with those found in upper Man-

hattan sixty years ago. The inference is natural that the conditions of soil and climate then and there were similar to those found in Pompton and West Milford now; though this conclusion must not be stressed, because all of these species have powers of adaptability and endurance.

A few excursions have been made into the town of Warwick in Orange County, New York, along the hills to the east of Greenwood Lake. Two interesting discoveries have been made. One is that of *Lysias Hookeriana*, previously reported from Westchester and Delaware Counties, New York, and from Sussex County, New Jersey, but not from the intervening territory. There is a small colony, near the lake level and not far from the highway, in an open wood. The other species, not observed as yet in Passaic County, is *Gymnadeniopsis clavellata*, which is infrequent in a big swamp high on the hill, in which the great rhododendrom is the chief inhabitant. In the same swamp were noticed a few starved plants of *Malaxis unifolia*.

Part of the territory in Passaic County is soon to be flooded, because of the building of a dam, to conserve the water supply for cities. Wood-cutters are doing their part, necessary but regrettable, in modifying if not destroying plant growth. Many species, even of orchids, are tolerant for years of changed conditions, but cannot survive ultimately any radical alterations of their environment. Now is the time to secure proofs, in specimens and films, of the presence, as yet, in our Local Area, of many interesting and vanishing species.

CHELSEA SQUARE, NEW YORK CITY.

## CONCERNING SOME SPECIES OF MACHAERANTHERA

GEO. E. OSTERHOUT

A perplexing group of plants is comprised in the genus *Machaerantha*. I suppose they have been something of a puzzle to most of those who have studied them. Many of the species seem to be closely related; and whether they are distinct species, I think is a matter of individual opinion. After a study of a number of the species occurring in Colorado I have arranged them in the following order.